

## BEST AVAILABLE COPY

## PATENT ABSTRACTS OF JAPAN

(11)Publication number : 10-308810

(43)Date of publication of application : 17.11.1998

(51)Int.Cl.

H04M 1/274  
H04Q 7/38

(21)Application number : 09-130417

(71)Applicant : NEC CORP

(22)Date of filing : 02.05.1997

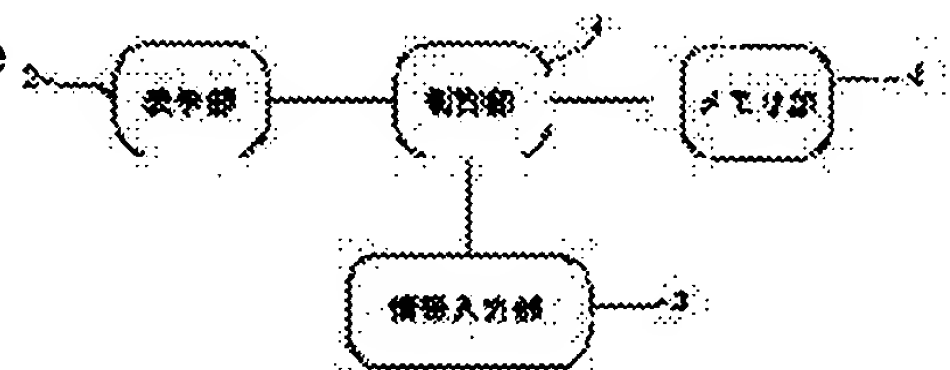
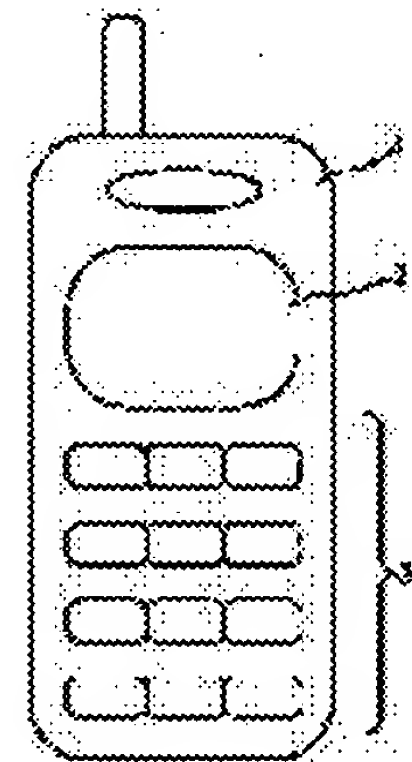
(72)Inventor : TANI JUNICHI

(54) PORTABLE TELEPHONE SET

(57)Abstract:

PROBLEM TO BE SOLVED: To provide the portable telephone set in which it is not required to store a telephone number of an opposite party and an excess code number or the like and the telephone number is retrieved and dialed with a required minimum operation procedure by allowing the user to have only to store a name of an opposite part thereby enhancing the operability and the convenience.

SOLUTION: The telephone set is provided with an information entry section 3, a display section 2, a storage section 5 and a control section 4. Capital information is extracted from name information entered with a telephone number by the information entry section 3 and stored in the storage section 5 by crossreferencing the capital information with the telephone number and the name information. Furthermore, pluralities of sets of the capital information stored in the storage section 5 are displayed on the display section 2, and in the case that the user selects the desired capital information among the capital information sets displayed on the display section 2, the telephone number and the name information corresponding to the capital information are read from the storage section 5 and displayed on the display section 2. When a dialing operation is made, the telephone set makes dialing to the telephone number of the selected name.



## LEGAL STATUS

[Date of request for examination] 02.05.1997

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number] 2933058

[Date of registration] 28.05.1999

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's decision of rejection]

[Date of extinction of right]

\* NOTICES \*

JPO and INPIT are not responsible for any damages caused by the use of this translation.

1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. \*\*\*\* shows the word which can not be translated.
3. In the drawings, any words are not translated.

---

CLAIMS

---

[Claim(s)]

[Claim 1] The information input section equipped with input means, such as an input key or a touch panel which inputs information, such as the telephone number and an identifier, While recognizing the actuation in said input means to be the display which displays the information inputted in said information input section, and the storage section which memorizes the information inputted in said information input section and displaying required information on said display according to an input The cell phone unit characterized by providing the means which carries out automatic conversion of the identifier information inputted at an initial, and said storage section is made to memorize.

[Claim 2] Summarize two or more initial information memorized by said storage section to said display, and it is displayed on it. By actuation in said input means of said information input section, in a cursor format The cell phone unit according to claim 1 which makes selectable initial information on the ~~arbitration of said~~ two or more displayed initial information, and is characterized by having a means to call and dial the telephone number information and identifier information corresponding to said selected initial information.

[Claim 3] In the cell phone unit containing the information input section, a display, and the storage section, extract initial information from the identifier information inputted with the telephone number from said information input section, make it correspond with said telephone number and identifier information, and it memorizes in said storage section. The initial information memorized by said storage section is displayed on said display as a list. When a user chooses the initial information on desired among the initial information displayed on said display The cell phone unit characterized by what is dialed to the telephone number corresponding to the identifier of said selected initial when the telephone number and/or identifier information corresponding to this initial information are read from said storage section, it displays on said display and submission operation is made.

---

[Translation done.]

**\* NOTICES \***

JPO and INPIT are not responsible for any damages caused by the use of this translation.

1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. \*\*\*\* shows the word which can not be translated.
3. In the drawings, any words are not translated.

---

**DETAILED DESCRIPTION**

---

**[Detailed Description of the Invention]****[0001]**

**[Field of the Invention]** Especially this invention relates to the cell phone unit which attains simplification of dial actuation by the input of telephone number information, storage, and retrieval about personal digital assistants, such as a portable telephone.

**[0002]**

**[Description of the Prior Art]** The approach of calling and dialing the telephone number which memorizes the telephone number other than the approach of inputting the direct telephone number in the memory in a cellular phone beforehand, and is memorized by memory at the time of a dial from the keyboard on a personal digital assistant etc. as the approach of the dialing in the personal digital assistant which has communication facility which is represented by the portable telephone is learned conventionally.

**[0003]** And the approach of giving a specific abbreviated number to the memorized telephone number as an approach calling the telephone number memorized by memory, and inputting the abbreviated number at the time of a call, Or so that it may be indicated by JP,61-288646,A, for example The method of searching the required telephone number etc. is learned by memorizing the identifier corresponding to the telephone number etc. to storage and coincidence of the telephone number, and inputting the initial of the corresponding name or its name etc. as a keyword.

**[0004]** Moreover, the cordless telephones system it was made to raise facilities is proposed by inputting into JP,4-96460,A the initial of the name which wants to know the telephone number by actuation of the pocket section etc. with the code number which was able to be defined beforehand, searching the name and the telephone number which were beforehand memorized by the storage connected to the private-telephone exchange, and displaying on the indicator prepared in the pocket section. This aims at improvement in the operability of an alphabetic character input by coding the alphabetic character which should be inputted, in order to make an identifier and an initial into a keyword and to search them.

**[0005]**

**[Problem(s) to be Solved by the Invention]** However, the above-mentioned Prior art has the trouble of the following publication.

**[0006]** (1) A specific abbreviated number is first given to the memorized telephone number, and the user needs to memorize which telephone number is memorized as an abbreviated number, or it is necessary to record on paper by the approach of inputting the abbreviated number at the time of a call.

**[0007]** (2) Moreover, in the telephone with an auto-dial function given [ above-mentioned ] in JP,61-288646,A it enabled it to telephone automatically from the initial of a partner's name or a name, since it is necessary to input an alphabetic character in the combination of the limited numerical keypad in the case of the retrieval in a name or an initial, actuation [ increase / operating procedure ] will be complicated and remarkable time and effort will be taken by retrieval as a result.

**[0008]** (3) furthermore also in the system of above-mentioned JP,4-96460,A which meant simplification for the operability, the user needs to memorize the code number of an alphabetic character after all --

etc. -- there is troublesomeness.

[0009] (4) Although the method of being a call and dialing the memorized telephone number currently beforehand assigned by preparing a specific carbon button on a personal digital assistant for the purpose of simplification of actuation, for example, pushing the carbon button is also developed In the personal digital assistant which respects portability, it is difficult in tooth space to newly prepare a specific carbon button in many cases, and there is no change in that there is the need that the user memorizes after all which telephone number was registered into the carbon button.

[0010] Therefore, this invention is made in view of the trouble of the above-mentioned conventional technique, the purpose does not need to memorize a partner's telephone number, an excessive code number, etc., if the user has memorized even a partner's name (identifier), the telephone number can be searched and dialed with minimum operating procedure, and it is in offering the cell phone unit which improves operability and convenience.

[0011]

[Means for Solving the Problem] In order to attain said purpose, the cell phone unit of this invention The information input section equipped with input means, such as an input key or a touch panel which inputs information, such as the telephone number and an identifier, While recognizing the actuation in said input means to be the display which displays the information inputted in said information input section, and the storage section which memorizes the information inputted in said information input section and displaying required information on said display according to an input It is characterized by providing the means which carries out automatic conversion of the identifier information inputted at an initial, and said storage section is made to memorize.

[0012] Moreover, summarize two or more this inventions to said display, and they display on it the initial information memorized by said storage section. By actuation in said input means of said information input section, in a cursor format Initial information on the arbitration of said two or more displayed initial information is made selectable, and it is characterized by having a means to call and dial the telephone number information and identifier information corresponding to said selected initial information.

[0013]

[Embodiment of the Invention] The gestalt of operation of this invention is explained below. In the gestalt of the desirable operation, from the identifier information inputted with the telephone number from the information input section, automatically, the cell phone unit of this invention extracts initial information, and memorizes it in the storage section in the telephone number and identifier information, and the form to which it was made to correspond.

→ [0014] And by choosing this initial information that displayed the list of this initial information memorized by the storage section on the display of a cell phone unit, and the user was displayed on the display by actuation of an input key or a touch panel, the telephone number or identifier information that it corresponds is displayed on the display read from the storage section, and carries out auto-dial of this telephone number by the predetermined key stroke.

→ [0015] Thus, according to the gestalt of operation of this invention, it is not necessary to memorize a partner's telephone number, an excessive code number, etc., and a user can search and dial the telephone number with minimum operating procedure, if even a partner's identifier is memorized.

[0016]

[Example] The example of the cell phone unit of this invention is explained below at a detail that the gestalt of the above-mentioned implementation should be further explained to a detail.

[0017] Drawing 1 is the front view showing the appearance of one example of the cell phone unit of this invention. Drawing 2 shows the configuration of one example of the cell phone unit of this invention with a block diagram.

[0018] When drawing 2 is referred to, one example of the cell phone unit of this invention contains a display 2, the information input section 3, a control section 4, and the memory section 5. Among these, if the information input section 3 also refers to drawing 1, it will consist of input keys or touch panels etc. which were prepared in the transverse plane of the body 1 of a cell phone unit, and will perform the



input of the telephone number or identifier information. Moreover, a display 2 consists of LCD (liquid crystal display) etc., and displays the telephone number and the identifier which were inputted from the information input section 3.

[0019] A control section 4 detects the input key of the information input section 3, and actuation of a touch panel, changes the inputted identifier information into an initial automatically, or performs write-in read-out processing to the informational memory section 5.

[0020] The memory section 5 memorizes the inputted telephone number, an identifier, initial-ized information, etc.

[0021] Next, actuation of one example of the cell phone unit of this invention is explained.

[0022] The memory number according to individual is given and identifier information is memorized by it at the memory section 5, respectively while it is displayed on a display 2 by the telephone number list inputted from the information input section 3. Furthermore, in a control section 4, identifier information is automatically changed into an initial and is memorized by the memory number same in the telephone number list corresponding to the memory section 5 as identifier information.

[0023] As the approach of conversion with an initial, extract the first two characters of the capital letter part of (a) identifier information here. (b) In the case of the identifier information in (c) kana and the kanji format of extracting the alphabetic character of the beginning of identifier information, a null or a single character after a period, and a total of two characters, once changing the identifier information into a Roman alphabet format, there is the approach of extracting an initial like the above.

→ [0024] As the information initial-ized by the control section 4 is shown in drawing 3, the initial information for which it asks is chosen in the cursor format which summarizes more than one in a display 2, is displayed, and is displayed by actuation of the input key of the information input section 3, the key of a touch panel or others, etc. with a reversed character, an underline, etc.

[0025] Drawing 3 is drawing showing the example of a display of the initial information in the display of one example of the cell phone unit of this invention. The initial chosen with cursor etc. in drawing 3 (A) and drawing 3 (B) at the display 2, respectively "RH", "HO" carries out brightness reversal and is displayed (part which performed and showed hatching by a diagram). Under the initial list on the screen of a display 2 in drawing 3 (A) The telephone number "123-4567" of an initial "RH" is displayed, and the identifier "H. Okada" of an initial "HO" is displayed in drawing 3 (B).

X [0026] And the telephone number and identifier information corresponding to the selected initial information are called from the memory section 5, and are displayed on a display 2.

[0027] At this time, the telephone number concerned is dialed by performing submission operation by the predetermined key stroke as which the information input section 3 was determined beforehand.

[0028] Drawing 4 is the flow chart showing the flow of operation which shows sequence of operation, such as initial-izing, a display, and selection, to the \*\*\*\*\* list in one example of the cell phone unit of this invention from the input of identifier information.

[0029] If the telephone number/identifier is inputted from the information input section 3 with reference to drawing 4 (step 101), an initial will be extracted from identifier information (step 102), and the telephone number / identifier / initial will be memorized by the memory section 5 (step 103).

[0030] And an initial information list is displayed on a display 2 (step 104), an initial is chosen by actuation of a key or a touch panel with cursor etc. on the screen of a display 2 (steps 105 and 106), the telephone number/identifier of the memory number corresponding to the this chosen initial are displayed, and the telephone number is dialed by the predetermined key stroke (steps 107 and 108).

[0031]

[Effect of the Invention] According to the cell phone unit of this invention, it is not necessary to memorize a partner's telephone number, an excessive code number, etc., and as explained above, if even a partner's identifier is memorized, the telephone number can be searched and dialed with minimum operating procedure, and the effectiveness of improving the operability of a cellular phone and convenience specially is done so.

[0032] The reason is because it constituted so that the telephone number and identifier information that it corresponds could be called and dialed by initial-izing automatically identifier information inputted

with the telephone number in this invention, memorizing in the memory section with the telephone number and identifier information, and choosing this initial information displayed on the display.

---

[Translation done.]

**\* NOTICES \***

**JPO and INPIT are not responsible for any damages caused by the use of this translation.**

- 1.This document has been translated by computer. So the translation may not reflect the original precisely.
- 2.\*\*\*\* shows the word which can not be translated.
- 3.In the drawings, any words are not translated.

---

**TECHNICAL FIELD**

---

[Field of the Invention] Especially this invention relates to the cell phone unit which attains simplification of dial actuation by the input of telephone number information, storage, and retrieval about personal digital assistants, such as a portable telephone.

---

[Translation done.]



**\* NOTICES \***

JPO and INPIT are not responsible for any damages caused by the use of this translation.

1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. \*\*\*\* shows the word which can not be translated.
3. In the drawings, any words are not translated.

---

**PRIOR ART**

---

[Description of the Prior Art] The approach of calling and dialing the telephone number which memorizes the telephone number other than the approach of inputting the direct telephone number in the memory in a cellular phone beforehand, and is memorized by memory at the time of a dial from the keyboard on a personal digital assistant etc. as the approach of the dialing in the personal digital assistant which has communication facility which is represented by the portable telephone is learned conventionally.

[0003] And the approach of giving a specific abbreviated number to the memorized telephone number as an approach calling the telephone number memorized by memory, and inputting the abbreviated number at the time of a call, Or so that it may be indicated by JP,61-288646,A, for example The method of searching the required telephone number etc. is learned by memorizing the identifier corresponding to the telephone number etc. to storage and coincidence of the telephone number, and inputting the initial of the corresponding name or its name etc. as a keyword.

[0004] Moreover, the cordless telephones system it was made to raise facilities is proposed by inputting into JP,4-96460,A the initial of the name which wants to know the telephone number by actuation of the pocket section etc. with the code number which was able to be defined beforehand, searching the name and the telephone number which were beforehand memorized by the storage connected to the private-telephone exchange, and displaying on the indicator prepared in the pocket section. This aims at improvement in the operability of an alphabetic character input by coding the alphabetic character which should be inputted, in order to make an identifier and an initial into a keyword and to search them.

---

[Translation done.]

**\* NOTICES \***

JPO and INPIT are not responsible for any damages caused by the use of this translation.

1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. \*\*\*\* shows the word which can not be translated.
3. In the drawings, any words are not translated.

---

**EFFECT OF THE INVENTION**

---

[Effect of the Invention] According to the cell phone unit of this invention, it is not necessary to memorize a partner's telephone number, an excessive code number, etc., and as explained above, if even a partner's identifier is memorized, the telephone number can be searched and dialed with minimum operating procedure, and the effectiveness of improving the operability of a cellular phone and convenience specially is done so.

[0032] The reason is because it constituted so that the telephone number and identifier information that it corresponds could be called and dialed by initial-izing automatically identifier information inputted with the telephone number in this invention, memorizing in the memory section with the telephone number and identifier information, and choosing this initial information displayed on the display.

---

[Translation done.]

**\* NOTICES \***

JPO and INPIT are not responsible for any damages caused by the use of this translation.

1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. \*\*\*\* shows the word which can not be translated.
3. In the drawings, any words are not translated.

---

**TECHNICAL PROBLEM**

---

[Problem(s) to be Solved by the Invention] However, the above-mentioned Prior art has the trouble of the following publication.

[0006] (1) A specific abbreviated number is first given to the memorized telephone number, and the user needs to memorize which telephone number is memorized as an abbreviated number, or it is necessary to record on paper by the approach of inputting the abbreviated number at the time of a call.

[0007] (2) Moreover, in the telephone with an auto-dial function given [ above-mentioned ] in JP,61-288646,A it enabled it to telephone automatically from the initial of a partner's name or a name, since it is necessary to input an alphabetic character in the combination of the limited numerical keypad in the case of the retrieval in a name or an initial, actuation [ increase / operating procedure ] will be complicated and remarkable time and effort will be taken by retrieval as a result.

[0008] (3) furthermore also in the system of above-mentioned JP,4-96460,A which meant simplification for the operability, the user needs to memorize the code number of an alphabetic character after all -- etc. -- there is troublesomeness.

[0009] (4) Although the method of being a call and dialing the memorized telephone number currently beforehand assigned by preparing a specific carbon button on a personal digital assistant for the purpose of simplification of actuation, for example, pushing the carbon button is also developed In the personal digital assistant which respects portability, it is difficult in tooth space to newly prepare a specific carbon button in many cases, and there is no change in that there is the need that the user memorizes after all which telephone number was registered into the carbon button.

[0010] Therefore, this invention is made in view of the trouble of the above-mentioned conventional technique, the purpose does not need to memorize a partner's telephone number, an excessive code number, etc., if the user has memorized even a partner's name (identifier), the telephone number can be searched and dialed with minimum operating procedure, and it is in offering the cell phone unit which improves operability and convenience.

---

[Translation done.]

**\* NOTICES \***

**JPO and INPIT are not responsible for any damages caused by the use of this translation.**

1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. \*\*\*\* shows the word which can not be translated.
3. In the drawings, any words are not translated.

---

**MEANS**

---

[Means for Solving the Problem] In order to attain said purpose, the cell phone unit of this invention The information input section equipped with input means, such as an input key or a touch panel which inputs information, such as the telephone number and an identifier, While recognizing the actuation in said input means to be the display which displays the information inputted in said information input section, and the storage section which memorizes the information inputted in said information input section and displaying required information on said display according to an input It is characterized by providing the means which carries out automatic conversion of the identifier information inputted at an initial, and said storage section is made to memorize.

[0012] Moreover, summarize two or more this inventions to said display, and they display on it the initial information memorized by said storage section. By actuation in said input means of said information input section, in a cursor format Initial information on the arbitration of said two or more displayed initial information is made selectable, and it is characterized by having a means to call and dial the telephone number information and identifier information corresponding to said selected initial information.

[0013]

[Embodiment of the Invention] The gestalt of operation of this invention is explained below. In the gestalt of the desirable operation, from the identifier information inputted with the telephone number from the information input section, automatically, the cell phone unit of this invention extracts initial information, and memorizes it in the storage section in the telephone number and identifier information, and the form to which it was made to correspond.

[0014] And by choosing this initial information that displayed the list of this initial information memorized by the storage section on the display of a cell phone unit, and the user was displayed on the display by actuation of an input key or a touch panel, the telephone number or identifier information that it corresponds is displayed on the display read from the storage section, and carries out auto-dial of this telephone number by the predetermined key stroke.

[0015] Thus, according to the gestalt of operation of this invention, it is not necessary to memorize a partner's telephone number, an excessive code number, etc., and a user can search and dial the telephone number with minimum operating procedure, if even a partner's identifier is memorized.

---

[Translation done.]

\* NOTICES \*

JPO and INPIT are not responsible for any damages caused by the use of this translation.

1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. \*\*\*\* shows the word which can not be translated.
3. In the drawings, any words are not translated.

---

DESCRIPTION OF DRAWINGS

---

[Brief Description of the Drawings]

[Drawing 1] It is the front view showing the appearance of one example of the cell phone unit by this invention.

[Drawing 2] It is drawing having shown the configuration of one example of the cell phone unit of this invention with functional block.

[Drawing 3] In one example of the cell phone unit of this invention, it is drawing showing the example of a display in the display of initial information.

[Drawing 4] In one example of the cell phone unit of this invention, it is the flow chart showing the flow of operation which shows sequence of operation, such as initial-izing, a display, and selection, to a telephone number list from the input of identifier information.

[Description of Notations]

- 1 Body of Cell Phone Unit
- 2 Display
- 3 Information Input Section
- 4 Control Section
- 5 Memory Section

---

[Translation done.]

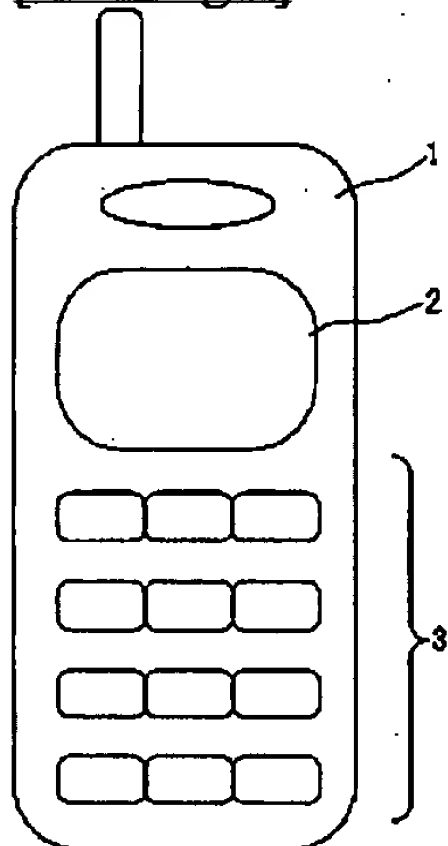
## \* NOTICES \*

JPO and INPIT are not responsible for any damages caused by the use of this translation.

1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. \*\*\*\* shows the word which can not be translated.
3. In the drawings, any words are not translated.

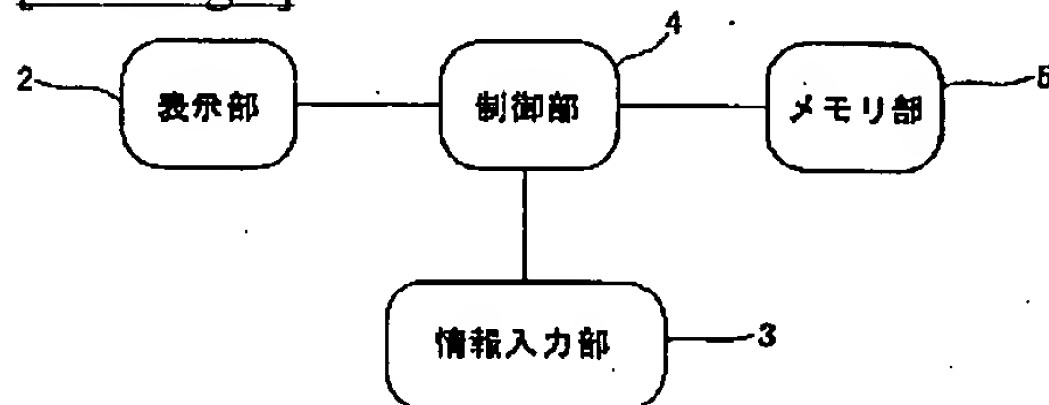
## DRAWINGS

[Drawing 1]

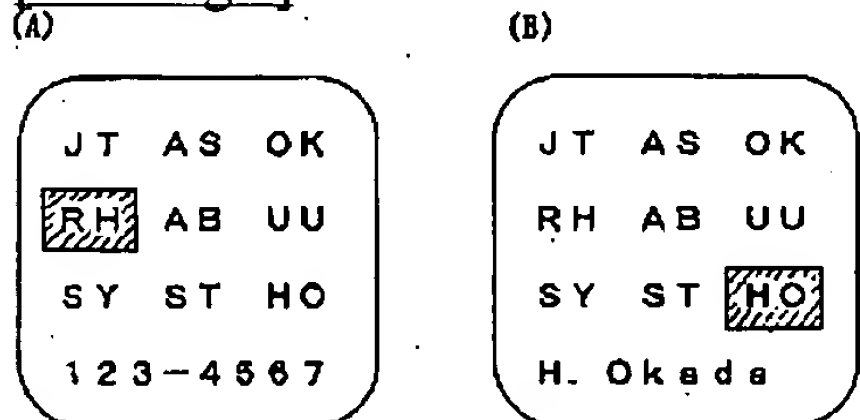


2: display  
3: Information input section  
4: Control section  
5: Memory

[Drawing 2]

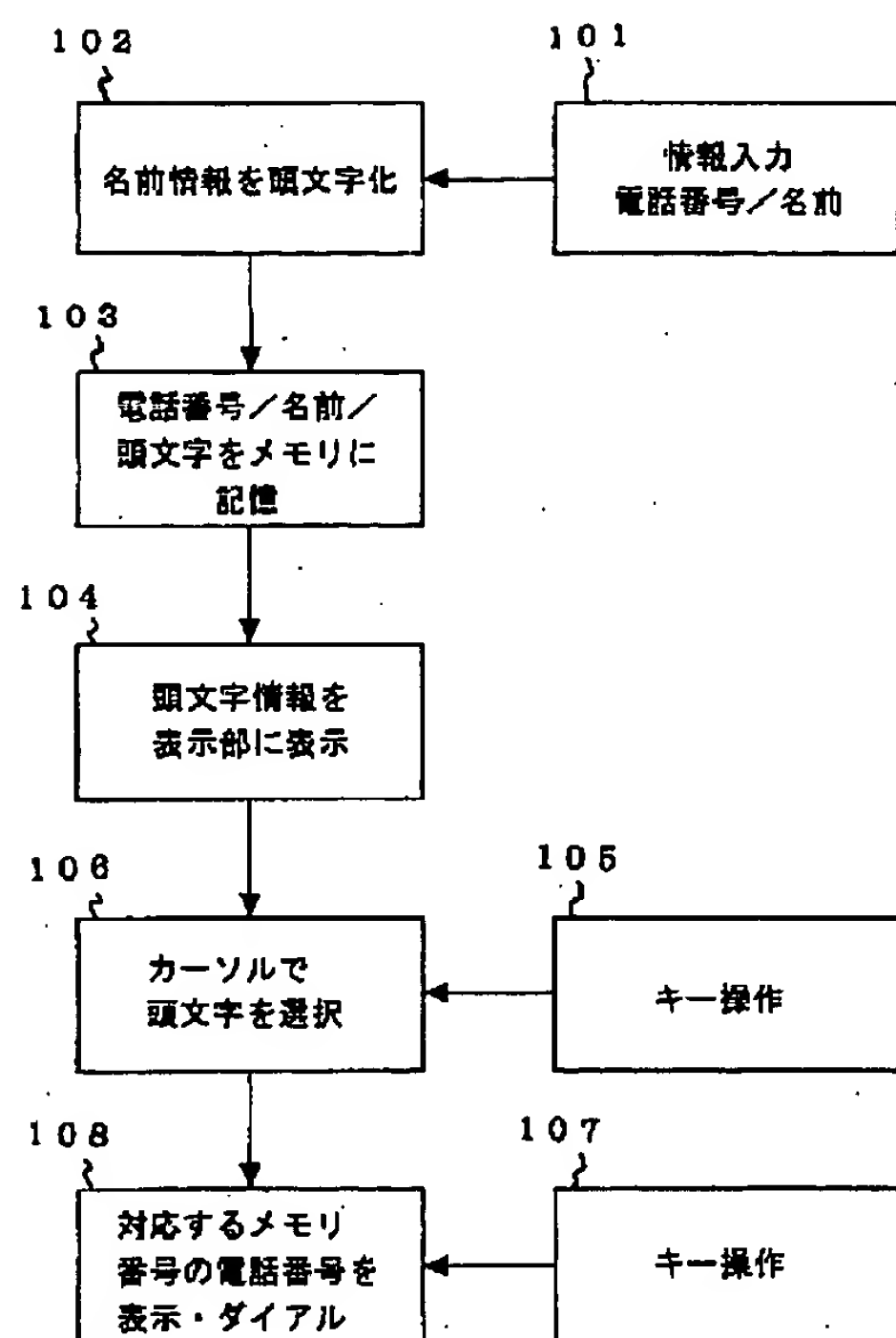


[Drawing 3]



[Drawing 4]





---

[Translation done.]

**This Page is Inserted by IFW Indexing and Scanning  
Operations and is not part of the Official Record**

**BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- ☐ BLACK BORDERS
- ☐ IMAGE CUT OFF AT TOP, BOTTOM OR SIDES
- ☒ FADED TEXT OR DRAWING
- ☐ BLURRED OR ILLEGIBLE TEXT OR DRAWING
- ☐ SKEWED/SLANTED IMAGES
- ☐ COLOR OR BLACK AND WHITE PHOTOGRAPHS
- ☐ GRAY SCALE DOCUMENTS
- ☐ LINES OR MARKS ON ORIGINAL DOCUMENT
- ☐ REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY
- ☐ OTHER: \_\_\_\_\_

**IMAGES ARE BEST AVAILABLE COPY.**

**As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.**